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**United States Patent** [19]**Brown**[11] **Patent Number:** **5,848,492**[45] **Date of Patent:** **Dec. 15, 1998**[54] **AGRICULTURAL METHODS WITH  
SUPERHEATED STEAM**[76] Inventor: **Claude E. Brown**, 14281 Vintage Rd.,  
Lodi, Calif. 95240[21] Appl. No.: **958,073**[22] Filed: **Oct. 27, 1997****Related U.S. Application Data**

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[51] Int. Cl.<sup>6</sup> ..... **A01M 15/00; A01G 13/00**[52] U.S. Cl. .... **47/1.44; 47/58**[58] Field of Search ..... **47/1.44, 58**[56] **References Cited****U.S. PATENT DOCUMENTS**

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[57] **ABSTRACT**

Methods for treating plants and fields in agricultural appli-  
cations are provided by selective delivery of superheated  
steam. Particularly preferred applications include delivery  
adjacent to grape vine leaves in order to defoliate basal  
leaves and to kill localized insect pests, and by injecting  
superheated steam in strawberry beds prior to planting to kill  
nematodes. The superheated steam is delivered at tempera-  
tures in excess of about 250° F.

**18 Claims, 6 Drawing Sheets**